

WHAT IS CLAIMED IS:

1. An arrangement of components for use in a power line communication system, comprising:
  - an inductive coupler having a core with an aperture through which a coaxial power cable is routed, wherein said coaxial power cable has a center conductor and an outer conductor; and
  - a lead being routed through said aperture, wherein said lead connects said outer conductor to a termination.
2. The arrangement of claim 1,  
wherein said outer conductor provides a path for current in a first direction through said aperture, and  
wherein said lead provides a path for said current in a second direction through said aperture.
3. The arrangement of claim 2, wherein said second direction is opposite to said first direction.
4. The arrangement of claim 1, wherein said inductive coupler couples a communication signal via said center conductor.
5. The arrangement of claim 1, wherein said lead is wound around said core and routed through said aperture a plurality of times.
6. A method for coupling a signal via a coaxial cable for employment in a power line communication system, comprising:
  - routing a coaxial power cable through an aperture of a core of an inductive coupler, wherein said coaxial power cable has a center conductor and an outer conductor; and

routing a lead through said aperture, wherein said lead connects said outer conductor to a termination.

7. The method of claim 6,

wherein said outer conductor provides a path for current in a first direction through said aperture, and

wherein said lead provides a path for said current in a second direction through said aperture.

8. The method of claim 7, wherein said second direction is opposite to said first direction.

9. The method of claim 6, wherein said inductive coupler couples a communication signal via said center conductor.

10. The method of claim 6, wherein said lead is wound around said core and routed through said aperture a plurality of times.

11. An arrangement of an inductive signal coupler around a coaxial power cable for use in a power line communication system, comprising:

an inductive coupler having a core with an aperture through which a coaxial power cable is passed in a first direction; and

a conductor that terminates an outer conductor of said coaxial power cable, passing through said aperture in a second direction.

12. The arrangement of claim 11, wherein said conductor passes through said aperture a plurality of times in said second direction.

13. A method for coupling a signal via a coaxial power cable for employment in a power line communication system, comprising:

passing a coaxial power cable through an aperture of a core of an inductive coupler in a first direction, and;

passing a lead through said aperture in a second direction, wherein said lead terminates an outer conductor of said coaxial power cable.

14. The method of claim 13, wherein said lead is passed through said aperture a plurality of times in said second direction.

15. An arrangement of an inductive signal coupler around a coaxial power cable for use in a power line communication system, comprising:

an inductive coupler having a core with an aperture through which a coaxial power cable is passed in a direction; and  
a conductor that terminates an outer conductor of said coaxial power cable, passing through said aperture in said direction.

16. The arrangement of claim 15, wherein said conductor passes through said aperture a plurality of times in said direction.

17. A method for coupling a signal via a coaxial power cable for employment in a power line communication system, comprising:

passing a coaxial power cable through an aperture of a core of an inductive coupler in a direction, and;  
passing a lead through said aperture in said direction, wherein said lead terminates an outer conductor of said coaxial power cable.

18. The method of claim 17, wherein said lead is passed through said aperture a plurality of times in said direction.